



UPDATE ON ACTIVITIES OF THE TECHNICAL PANEL ON PHYTOSANITARY TREATMENTS (TPPT)

FROM MAY 2015 TO APRIL 2016

(Prepared by the IPPC Secretariat)

1. Background

- [1] The IPPC Secretariat support for the Technical Panel on Phytosanitary Treatments (TPPT) are:
- Ms Adriana G. Moreira (lead)
 - Mr Martin Farren (support)
- [2] The TPPT membership and contact information can be found on [IPP](#)¹. In table 1 there is a simplified version of the TPPT membership as of April 2016.
- [3] **Table 1.** TPPT membership (as of April 2016) and expertise of its members

PARTICIPANT ROLE	NAME (country*)	EXPERTISE					TERM EXPIRES
		Irradiation	Chemical	Fumigation	Temperature	Modified Atmosphere	
Steward	Mr Bart ROSSEL (Australia)						
Assistant steward	Mr Ezequiel FERRO (Argentina)						
Member	Mr Guy HALLMAN (FAO/IAEA)	X		X	X	X	2017 (1 st Term)
Member	Mr Eduardo WILLINK (Argentina)			X	X		2020 (2 nd Term)
Member	Mr Yuejin WANG (China)			X			2020 (2 nd Term)
Member	Mr Michael ORMSBY (New Zealand)		X	X	X	X	2020 (2 nd Term)
Member	Mr Scott MYERS (USA)			X	X		2018 (1 st Term)
Member	Mr Matthew SMYTH (Australia)	X		X	X		2019 (1 st Term)
Member	Mr Glenn BOWMAN (Australia)	X	X	X	X		2019 (1 st Term)
Member	Mr Daojian YU (China)	X		X	X		2019 (1 st Term)
Member	Mr Toshiyuki DOHINO (Japan)	X			X		2020 (1 st Term)
Member	Mr Andrew PARKER (FAO/IAEA)	X					Representative of FAO/IAEA

- [4] It should be noted that the IPPC Secretariat lead changed in August 2015 as Mr Nuri NIYAZI left the IPPC Secretariat.
- [5] It is to be noted that the Mr Patrick GOMES (United States of America) left the TPPT in December 2015.

¹ TPPT main page on IPP: <https://www.ippc.int/en/core-activities/standards-setting/expert-drafting-groups/technical-panels/technical-panel-phytosanitary-treatments/>

2. Volume of work for the TPPT from May 2015 to April 2016

- [6] The TPPT work programme currently comprises 13 phytosanitary treatments annexes to ISPM 28 (*Phytosanitary treatments for regulated pests*) and 5 draft International Standards for Phytosanitary Measures (ISPMs) on treatment requirements².
- [7] A total of 6 draft Phytosanitary treatments were progressed in 2015. In 2016, a total of 9 draft Phytosanitary treatments and 1 draft ISPM are projected to flow through the standard setting process (figure 1).

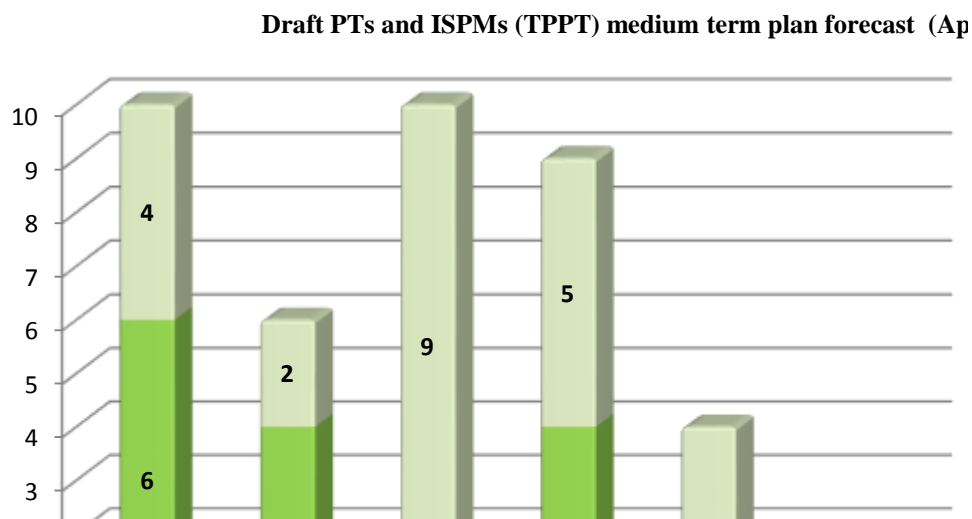


Figure 1. Medium term plan forecast for draft phytosanitary treatments (annexes to ISPM 28) and draft ISPMs on treatment requirements.

Highlights on the work

- [8] The TPPT continued to deliver its work programme during the May 2015 to April 2016 period and contributed to the adoption of two phytosanitary treatments annexes to ISPM 28 (*Phytosanitary treatments for regulated pests*), bringing the current IPPC phytosanitary treatments portfolio to 21 treatments. During this period, four draft phytosanitary treatments were submitted for member consultation.
- [9] The TPPT has started drafting five ISPMs on requirements for use of phytosanitary treatment as phytosanitary measures (“Treatment Requirements”). The draft ISPM on the requirements for the use of temperature treatments as a phytosanitary measure (2014-005), priority 1, was agreed to be presented to the Standards Committee (SC) for revision and decision on how to move forward.
- [10] It should be noted that nine draft phytosanitary treatments are currently awaiting the research, investigating how different fruit fly populations respond to cold treatments. It is expected that the results of this research undertaken by FAO / IAEA Joint Division, will be provided to the TPPT in the 2nd quarter of 2016.
- [11] Liaison with the Phytosanitary Measures Research Group (PMRG)³ continues and several TPPT members are part of this group. The aim of the PMRG is to harmonize research on phytosanitary treatments to continue to identify and coordinate research that will provide data to help respond to the

² More information in the *List of topics for IPPC standards*: <https://www.ippc.int/en/core-activities/standards-setting/list-topics-ippc-standards/>

³ Phytosanitary Measures Research Group: <https://www.ippc.int/en/liason/organizations/phytosanitarymeasuresresearchgroup/>

needs of the IPPC community and the TPPT in particular. This will help provide a sound scientific basis for the development of phytosanitary treatments.

- [12] The TPPT also reviewed its working procedures and the development of various documents related to its procedures and research recommendations, such as extrapolation to estimated efficacy, “Probit 9” and efficacy standards for phytosanitary treatments, instructions to assist NPPOs and RPPOs in proper and complete submissions and support documents for definition of effective dose. The latter came out as an ink amendment noted by CPM-11 (2016) to all adopted phytosanitary treatments.

3. TPPT Meetings

- [13] The TPPT has held four meetings since May 2015. The reports of these meetings can be found on the IPP⁴. These were:

- 2015 TPPT May virtual meeting
- 2015 TPPT September (face-to-face meeting): 31 August – 04 September 2015, Fukushima, Japan
- 2015 TPPT December virtual meeting
- 2016 TPPT March virtual meeting

- [14] In addition, four TPPT e-decisions were made and several emails discussions were held.

- [15] A summary of the discussions and outcomes of each meeting are detailed below, as well as intersession activities.

- [16] Detailed information on the TPPT work programme and the progress of draft phytosanitary treatments made in 2015 can be found in the Commission on Phytosanitary Measures document CPM 2016/19 (Report on the activities of the Standards Committee in 2015)⁵.

2015 May TPPT virtual meeting

- [17] The TPPT reviewed their work programme (“TPPT portfolio”) which includes five new topics for ISPMs on different treatment requirements as well as 15 draft phytosanitary treatments. These are all at various stages of development in the standard setting procedure. The TPPT reviewed member comments on six draft phytosanitary treatments. The TPPG recommended the SC put four draft phytosanitary treatments “on hold” pending receipt and review of additional studies. For the other two draft phytosanitary treatments, the TPPT agreed to review and finalized them at their next face to face meeting.

- [18] The TPPT was updated on the outcomes of CPM-10 (2015) and informed that the Secretariat had held a side session on the outcomes of the expert consultation on phytosanitary treatments for *Bactrocera dorsalis* complex^{6,7}, which had been held in December 2014 in Okinawa, Japan, in which several TPPT members participated. 2015 September Meeting (Fukushima, Japan)

⁴ TPPT meeting reports: <https://www.ippc.int/en/core-activities/standards-setting/expert-drafting-groups/technical-panels/technical-panel-phytosanitary-treatments/>

⁵ CPM 2016/19: Report on the activities of the Standards Committee in 2015 - <https://www.ippc.int/en/publications/82090/>

⁶ Summary of the CPM-10 Side Session “Expert consultation on phytosanitary treatments for *Bactrocera dorsalis* complex”: <http://www.phytosanitary.info/activity/cpm-10-side-session-expert-consultation-phytosanitary-treatments-bactrocera-dorsalis>

⁷ “Expert consultation on phytosanitary treatments for *Bactrocera dorsalis* complex” meeting report: <https://www.ippc.int/en/publications/2702/>

- [19] The TPPT reviewed its work programme. It was noted that four draft Phytosanitary treatments had been submitted to member consultation on 1 July 2015.
- [20] The TPPT discussed in detail the comments from the 2014 member consultation of two draft phytosanitary treatments and these draft phytosanitary treatments were recommended to the SC for adoption by the CPM. Environmental and implementation issues were also discussed.
- [21] The draft ISPM for Requirements for the use of temperature treatments as a phytosanitary measure (2014-005), Priority 1, was progressed. During the revision of this draft ISPM, the TPPT discussed whether the treatments type “vapour heat (VH)” and “high temperature forced air (HTFA)” should be considered one treatment with distinctions in the schedules, as they both include parameters of humidity and heat. Because there seems to be no differences in efficacy between VH and HTFA treatments, the panel agreed that HTFA is a variation of VH and should be mentioned under VH for explanatory purposes, not as a separate treatment. In regards to the operational challenges, the panel did not think there would be problems with the differences between these two forms of vapor heat treatment.
- [22] Due to time constrains at the meeting, the finalization of the draft ISPM on Requirements for the use of temperature treatments as a phytosanitary measure (2014-005) was postponed to the next TPPT virtual meeting.
- [23] The TPPT reviewed and discussed various documents related to its procedures and research recommendations. Adjustments to the TPPT working criteria were made as follows:
- **Requirements for experimental replication underpinning proposed PT schedules.** The TPPT recommended that when carrying out confirmatory trials the minimum number of replicates should be three and that the three replicates should be true repeats of the basic experimental unit.
 - **Use of extrapolation to estimate phytosanitary treatment efficacy.** The TPPT agreed to the concepts that should be considered when using extrapolation to estimate phytosanitary treatment efficacy.
 - **“Probit 9” and efficacy standards for phytosanitary treatments.** The TPPT agreed that “Probit 9” was not always particularly useful and that other factors affecting pest survival and establishment should also be considered.
 - **Issues associated with drafting of the treatment descriptions for cold treatments.** Regarding cultivars of *Citrus* species, the TPPT concluded that there was no evidence indicating that different cultivars of *Citrus sinensis* responded differently to cold treatments. This conclusion was based on the analysis of a number of studies that did not demonstrate that there are any differences in responses to cold treatments on cultivar level for *Citrus sinensis*.
- [24] The TPPT reviewed its work plan for 2015-2016⁸ and developed its medium-term work plan for 2015-2019⁹. It was noted that that the research findings from the PRMG and FAO / IAEA may released in mid 2016, this would allow the TPPT to reassess the current nine draft Phytosanitary treatments that are on hold. The number of Phytosanitary treatments in the TPPT work programme would be significantly reduced, freeing-up resources for the panel to work on the draft ISPMs on Treatment Requirements and review additional treatments submissions. The panel strongly supported a call for treatments.

⁸ The TPPT work plan for 2015-2016 is presented in Appendix 7 of the TPPT September 2016 meeting report: <https://www.ippc.int/en/publications/81833/>

⁹ The TPPT medium-term work plan for 2015-2019 is presented in Appendix 9 of the TPPT September 2016 meeting report: <https://www.ippc.int/en/publications/81833/>

- [25] The TPPT expressed their appreciation for the work carried out by the Phytosanitary measures research group (previously the “Phytosanitary temperature treatments expert group”).

2015 TPPT December virtual meeting

- [26] The Secretariat updated the panel on the 2015 November SC meeting regarding relevant decisions pertaining to the TPPT. They were informed that the SC had agreed to a call for phytosanitary treatments (Phytosanitary treatments) in 2017 (subject to available resources) and stressed the importance of developing more phytosanitary treatments for use in international trade. The TPPT was informed that the SC approved ink amendments for 19 adopted phytosanitary treatments regarding the changes to clarify the level of efficacy in the Phytosanitary treatments. The SC approved modifications to the TPPT Specification TP 3¹⁰ under “Participants” to include an expert from the FAO/IAEA joint division in the TPPT membership. Other updates included adjustments of some changes of titles of phytosanitary treatments in the List of topics for IPPC standards¹¹ and approved “pending status” for nine draft phytosanitary treatments due to the need for further research in relation to *Ceratitis capitata* potential population response differences to cold and heat treatments based on a TPPT recommendation from the September 2015 TPPT meeting
- [27] The TPPT continued the revision of the draft ISPM on Requirements for the use of temperature treatments as a phytosanitary measure (2014-005). Due to time constraints, the TPPT formed a small group to work together with the steward and assistant steward to finalize the draft ISPM in order for it to be presented to the SC in May 2016.

2016 TPPT March virtual meeting

- [28] The panel reviewed their work plan and it was noted that the four draft Phytosanitary treatments that were submitted to member consultation in 2015 are tentatively planned to be presented to the SC by late 2016 for their approval to recommend to the CPM for adoption.
- [29] The panel revised some documents and research material related to its working procedures. Two documents were discussed, which were “*Estimating treated numbers from control emergence*” and “*Instructions to assist NPPOs and RPPOs in proper and complete treatment submissions*”. Regarding the first document, the panel agreed that the paper provided a suitable approach, however the panel felt that these calculations were based on a very conservative view, noting that they did not find that treatment failure was necessarily due to lack of severity but possibly due to operational errors. It was suggested that a table be prepared showing multiple examples of estimated numbers of treated pests using both direct and modified formula calculations. The TPPT reviewed the document but did not reach consensus on whether to include this paper in the TPPT working procedures as more discussion is needed on the effect of the use of the formula to estimate treatment efficacy under specified circumstances. Regarding the second document, the panel discussed and revised it but there remained outstanding issue in regards to the section on general considerations when calculating the level of efficacy achieved by a treatment schedule. The approval of this document was postponed as more discussion is needed on the estimating treated numbers from control emergence.

4. Tentative work plan for the period May 2016-April 2017

- [30] The TPPT tentative work plan for May 2016 – April 2017 is summarized in figure 1.
- [31] The next face to face meeting will be convened in Japan (tentative: Tokyo) on 29 August – 02 September 2016. This meeting will be hosted by the Plant Quarantine Office, Plant Protection Division, Food Safety and Consumers Affairs Bureau of the Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF). The tentative agenda is review the outcome of the research findings from the PRMG and FAO / IAEA and consider if this addressed the concerns raise in regards to the nine draft Phytosanitary treatments currently on hold, to consider comments on four draft

¹⁰ Specification TP 3 - Technical Panel on Phytosanitary Treatments: <https://www.ippc.int/en/publications/1308/>

¹¹ [IPP link to List of topics](#)

Phytosanitary treatments that were submitted to the 2015 member consultation and to develop at least one draft ISPM on treatment requirements. Prior to the face to face meeting, a virtual meeting is planned to occur on 05 July 2016 with the aim to discuss the results from the research in relation to *Ceratitis capitata* population response differences to cold and heat treatments. The TPPT will continue to work on the 13 draft Phytosanitary treatments and the five draft ISPMs on treatment requirements. It is expected that the all Phytosanitary treatments currently under the work programme will be recommended to the SC for recommendation for adoption by 2017.

[32] The TPPT will continue to work on the documents relating to the TPPT working procedures and research recommendations for finalization of these material.